156

SERVICE MANUAL

SANYO

STEREO RADIO CASSETTE PLAYER

WR-66

WEST GERMANY

142 461 10 (White)
142 461 11 (Yellow)
142 461 12 (Blue)

SPECIFICATIONS

Power Source	
DC	3V
(UM-3, HP 7, AA Cell, Mignonzelle, R 6) x 2	
Output Power	20mW x 2 (Max.)
Current Consumption (at Vol. Min.)	
Playback mode	170mA
Fast Forward/Rewind	240mA
Tape Speed	1-7/8ips. ±3%
Fast Forward Time	160sec. (with C-60)
Rewind Time	160sec. (with C-60)
Wow & Flutter	0.6%, RMS
Torque	
Playback	32 ~ 60g-cm
Fast Forward/Rewind	More than 50g-cm
Frequency Response (Playback)	63Hz ~ 8,000Hz
Signal to Noise Ratio	More than 41dB
Crosstalk	
Track to Track	More than 50dB
Channel Separation	More than 30dB
Hum & Noise (at Vol. Min.)	−63dBs
Terminal Impedance	
Headphone	32Ω
Frequency Range	
AM	525 ~ 1,605kHz
FM	87.5 ~ 108MHz
Dimensions (Max.)	86(W) x 126(H) x 37(D)mm
Weight (w/o batteries)	300g

–Specifications subject to change without notice.–

REFERENCE No. WM-19822

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DISASSEMBLY INSTRUCTIONS

GENERAL REMARKS

- Before disassembling the unit, spread a soft rubber mat or a cloth on the workbench to avoid scratches and grease stains.
- Do not use a material which is likely to cause static electricity because transistors and ICs may be easily damaged by it.
- Reassemble the unit, noting the kinds of screws, the soldering and arrangement of the leads. Refer to "Circuit Diagram and Exploded Views" for correct assembly.
- Reassemble in reverse order.

IMPORTANT !!

This model features a splash proof system. No need to worry about rain, spilled drinks or water splashes any longer. The unit is designed to withstand sprays of liquid. Do not immerse the unit in water.

Inorder to avoid any deterioration of the system, the parts listed below all need to be replaced with new ones whenever the Cabinet is reassembled for repair purposes. Parts listed are available as Hardware Kits.

PARTS No. of HARDWARE KIT

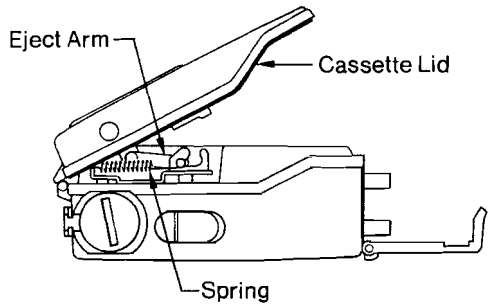
Color	Parts Code No.
White	141-0-1919-02900
Yellow	141-0-1919-02901
Blue	141-0-1919-02902

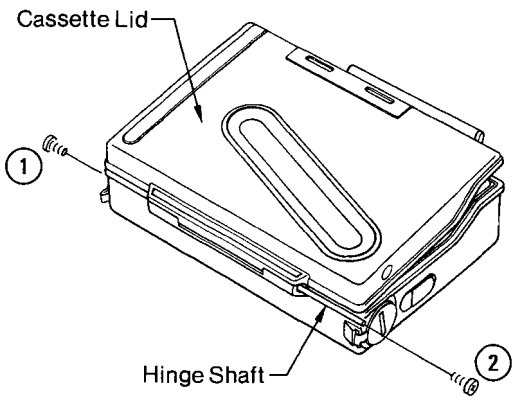
Details of the Hardware Kit

Part Name	Q'ty	White	Yellow	Blue
Screw Cover	6	141-2-1339-40700	141-2-1339-40701	141-2-1339-40702
Volume Cover	2	141-0-1569-00100	141-0-1569-00101	141-0-1569-00102

CASSETTE LID REMOVAL

1. Open the Cassette Compartment Lid and remove the Spring from the Eject Arm. Then remove the two screws (1 and 2).

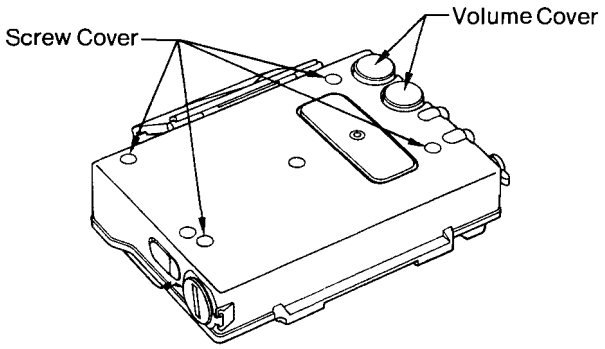




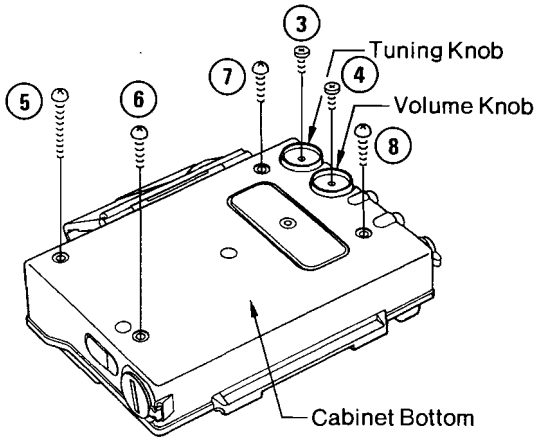
2. Let a wire through the hole located on the hinge's part of the Cabinet Bottom, then remove the Lid squeezing the Hinge Shaft. The Lid will be removed.

CABINET BOTTOM REMOVAL

1. Detach the Cassette Lid. Peel the two Volume Covers and four Screw Covers off the unit with a wire or an equivalent thing.
   After removing these parts, be sure to replace them with all new ones because of the inferiority of splash proof.

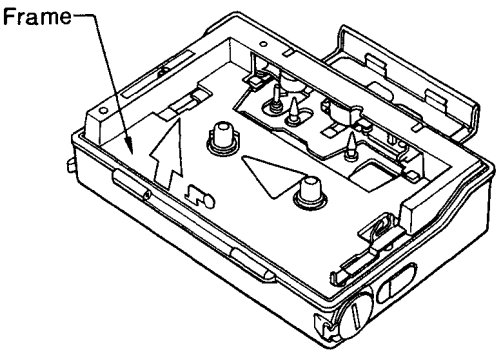


2. Then, remove the two screws (3 and 4) fastening the Tuning and Volume Knobs, and four screws (5 ~ 8) fastening the Cabinet Bottom. Then detach the Tuning and Volume Knobs.



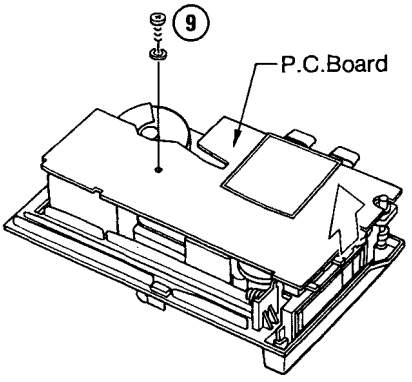
DISASSEMBLY INSTRUCTIONS (Continued)

3. Set the Function Switch to **RADIO**, the Band Select Switch to **FM ST**. Then turn over the unit. Lift the Frame as illustrated and detach the Cabinet Bottom from the unit.



P.C.BOARD REMOVAL

1. After the Cabinet Bottom is detached, remove the screw (9) on the P.C.Board.
2. Remove the P.C.Board by lifting it in the direction of the arrow noting the lead wires.



ADJUSTMENT PROCEDURES

GENERAL REMARKS

- Before adjusting the mechanism of this unit, wipe the tape contacting surfaces clean as well as the contacting surfaces of the driving parts except the Drive Belt with a cotton swab or a soft cloth soaked in alcohol.
  Trouble may occur because of oil and grease stains.
- Carefully handle the belt because grease easily attaches to it. Then check the used rubber parts. If the rubber has deteriorated or is scratched, replace the parts with new one.

EQUIPMENT REQUIRED

- Frequency Counter
- Dualtrace Oscilloscope
- VTVM (2 sets)
- Dummy Load (32Ω)
- Test Tapes
  - 3kHz test tape (Example: TEAC MTT-111)
  - 10kHz test tape (Example: TEAC MTT-114)
- Alignment Tool

NOTE:
Before the Adjustments, set the Switch and Control as follows:

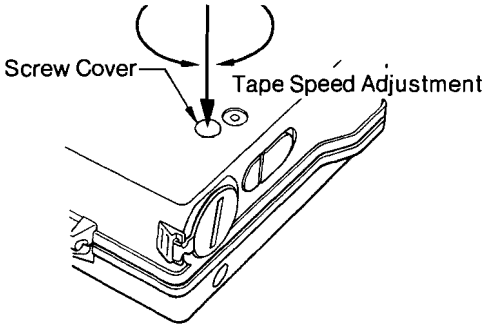
- Function Switch ..... TAPE
- Volume Control ..... As desired
- Supply the regulated DC 3V power to the Ext. Power Jack.

■ ADJUSTMENT PROCEDURE

Adjustment Item	Connection	Dummy Load	Measuring Instrument	Test Tape	Adjustment	Measuring Value
Tape Speed	Headphones	32Ω	Frequency Counter	TEAC MTT-111	P401	3,000Hz ±3%
Head Azimuth			VTVM	TEAC MTT-114	Azimuth Screw	Maximum
			Oscilloscope			Maximize two waveforms in phase.

TAPE SPEED ADJUSTMENT

■ Peel the Screw Cover for Tape Speed Adjustment off the unit with a wire or an equivalent thing.
After removing this part, be sure to replace it with a new one because of the inferiority of splash proof.



TUNER ADJUSTMENT

EQUIPMENT REQUIRED

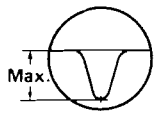
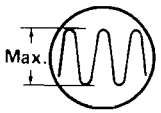
- AM Standard Signal Generator
- FM Standard Signal Generator
- Generator Scope
- Loop Antenna
- Dummy Antenna (75Ω, unbalanced type) for FM
- Ceramic Capacitor (10pF) for FM IF Alignment
- VTVM
- Frequency Counter
- Oscilloscope
- Dummy Load (32Ω)
- Alignment Tool
- Before performing the adjustment, set the Switches and Control as follows.
  - Function Switch ..... RADIO
  - Band Select Switch ..... AM or FM
  - Volume Control ..... As desired

NOTE:

- Use an alignment tool with plastic grip for all adjustments.
- Supply DC 3V to the Ext. Power Jack.

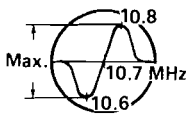
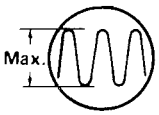
AM ALIGNMENT

Standard Test Frequency 400Hz and Modulation 30% at AM

Step	Alignment	Connections		Frequency of Signal Generator	Tuning Dial Setting	Adjustments	Remarks
		INPUT	OUTPUT				
1	Calibration of IF for AM	Connect loop antenna to output terminal of gene-scope. Place loop antenna 60cm away from bar antenna.	Connect input terminal of gene-scope to Pin 1 of IC3 (TP3).	460kHz	Low End	T3	Obtain symmetrical curve and maximum amplitude. 
2	Calibration of Tuning Range	Connect loop antenna to output terminal of AM signal generator. Place loop antenna 60cm away from bar antenna.	Connect VTVM with 32Ω dummy load and oscilloscope to Headphones jack.	510kHz		T4	Obtain sine-wave of 400Hz and maximum amplitude. 
3				1,670kHz	High End	TC4 (PVC)	
4	Adjustment of Tracking			600kHz	600kHz	L3 (bar ant. coil)	
5				1,400kHz	1,400kHz	TC3 (PVC)	
6	Repeat the above steps until no further change is noted in any of the adjustments.						

FM ALIGNMENT

Standard test frequency 400Hz and deviation 22.5kHz

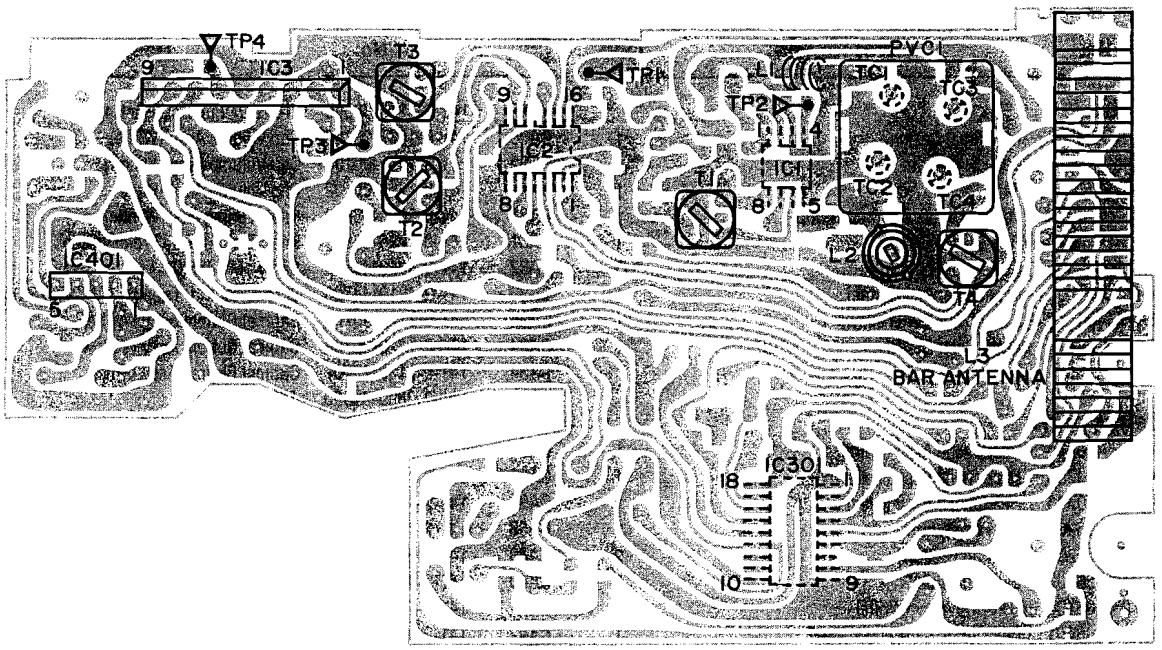
Step	Alignment	Connections		Frequency of Signal Generator	Tuning Dial Setting	Adjustments	Remarks
		INPUT	OUTPUT				
1	Calibration of IF	Connect output terminal of gene-scope to Pin 4 of IC1 (TP2) through ceramic capacitor (10pF).	Connect input terminal of gene-scope to Pin 1 of IC3 (TP3).	10.7MHz	Low End	T1 and T2	Obtain **S** curve and maximum amplitude. 
2	Calibration of Tuning Range	Connect FM signal generator to antenna terminal (TP1) through dummy antenna (75Ω, unbalanced type).	Connect VTVM with 32Ω dummy load and oscilloscope to Headphones jack.	87.35MHz		L2	Obtain sine-curve and maximum amplitude. 
3				108.25MHz	High End	TC2 (PVC)	
4	Adjustment of Tracking			90MHz	90MHz	L1	
5				106MHz	106MHz	TC1 (PVC)	
6	Repeat the above steps until no further change is noted in any of the adjustments.						

FM MPX (Multiplex) ADJUSTMENT

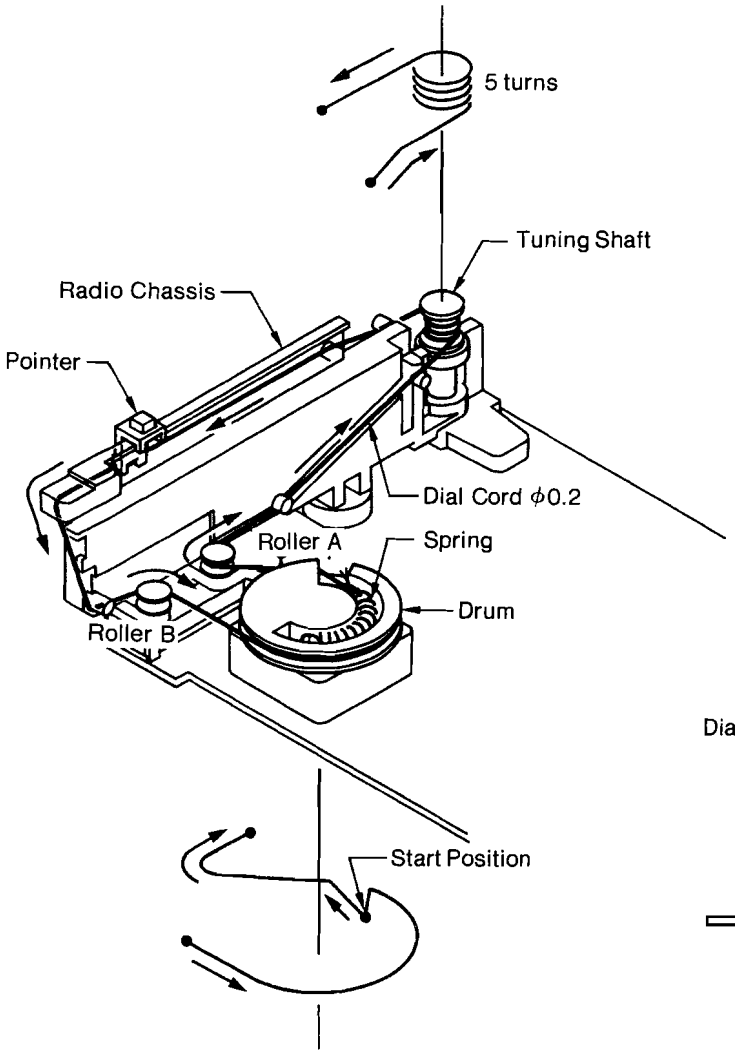
76kHz (V.C.O.) ADJUSTMENT

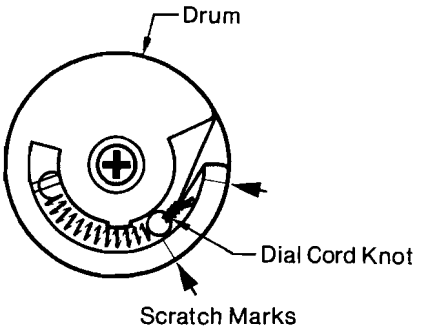
1. Set the Band Select Switch to FM ST and connect the resistor 220kΩ to the Pin 5 and Pin 6 of IC3 (LA7342P). Then connect the frequency counter across the resistor.
2. Adjust the potentiometer (P1) until the frequency counter reads 76kHz (±80Hz).

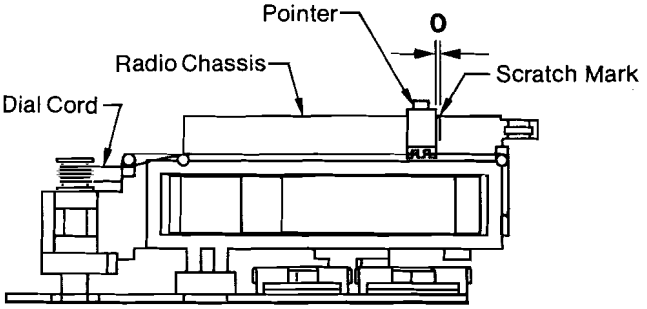
ALIGNMENT POINTS



DIAL CORD STRINGING







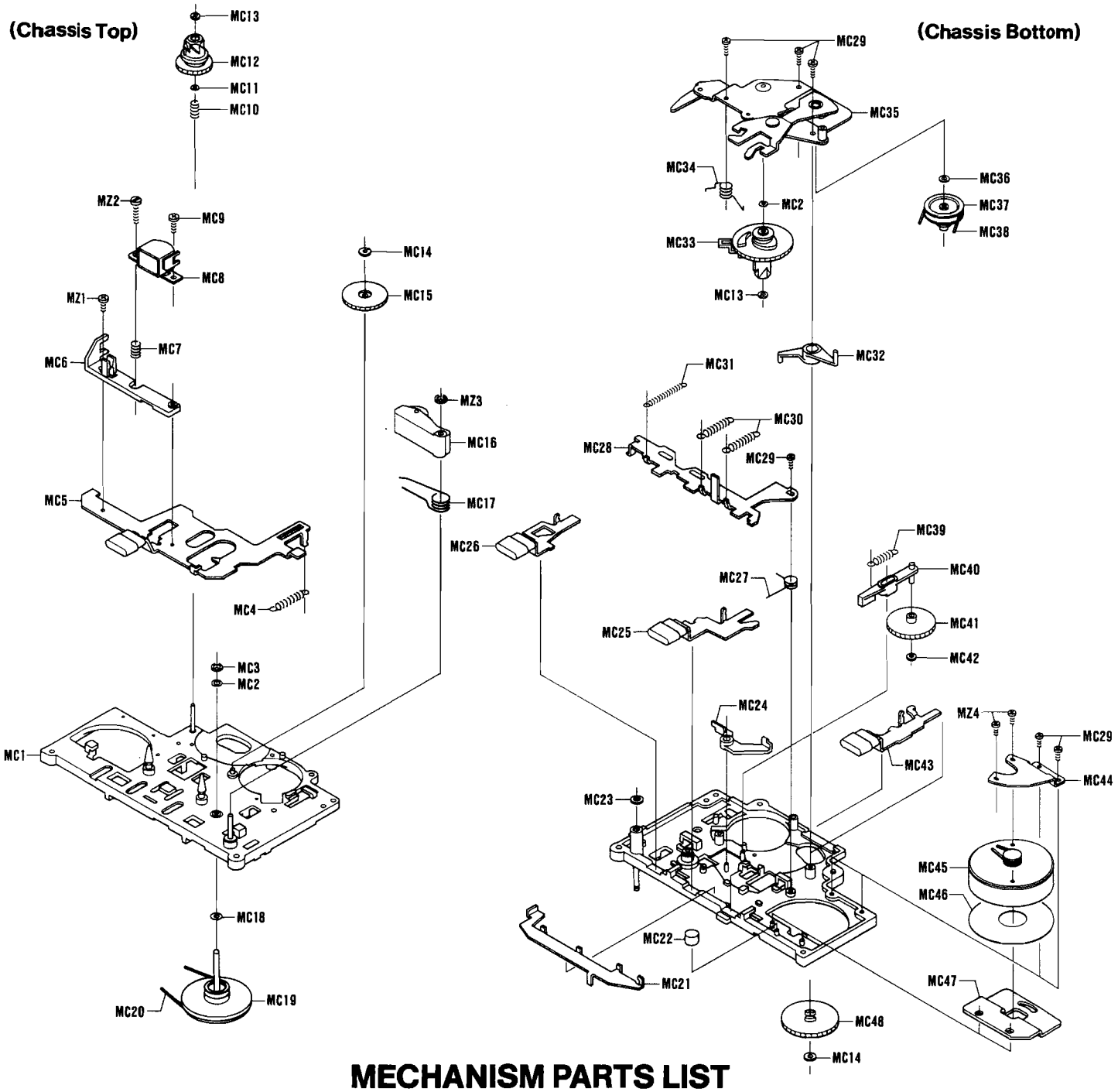
PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	PACKAGE		
	141-6-1419-94103	Individual Carton	1
	141-6-1469-22100	Case Styrofoam	1
	141-6-3919-57000	Pad	1
	141-6-2519-08015	Poly Cover 80 x 150 (Belt Clip)	1
	141-6-2519-12090	Poly Cover (Unit)	1
	141-6-4559-03305	Serial No. Sheet	3
	141-6-4559-04107	Label Color WH (White)	1
	141-6-4559-04112	Label Color YW (Yellow)	1
	141-6-4559-04114	Label Color BL (Blue)	1
	ACCESSORIES		
	4-1529-70740	Headphone Assy (White)	1
	4-1529-70738	Headphone Assy (Yellow)	1
	4-1529-70736	Headphone Assy (Blue)	1
	141-2-4469-56203	Ear Pad (White)	2
	141-2-4469-56201	Ear Pad (Yellow)	2
	141-2-4469-56202	Ear Pad (Blue)	2
	141-0-1259-03400	Belt Clip Assy (White)	1
	141-0-1259-03401	Belt Clip Assy (Yellow/Blue)	1
	141-2-1769-11400	Shoulder Strap	1
	142-6-4119-33519	Instruction Book	1
	CABINET		
CA1	141-2-4219-18601	Screw, Pan Hd., +M1.7x2.5	2
CA2	141-2-2149-30600	Bracket Lock	1
CA3	141-0-1249-44200	Lid Cassette Assy (White)	1
CA3	141-0-1249-44201	Lid Cassette Assy (Yellow)	1
CA3	141-0-1249-44202	Lid Cassette Assy (Blue)	1
CA4	141-2-4219-26700	Screw, Pan Hd., +M1.4x2.0	1
CA5	141-2-1339-40700	Cover Screw 2 (White)	7
CA5	141-2-1339-40701	Cover Screw 2 (Yellow)	7
CA5	141-2-1339-40702	Cover Screw 2 (Blue)	7
CA6	141-2-8549-13400	Spring Eject	1
CA7	141-2-4219-29901	Screw, Pan Hd. Tapping-B, +M1.7x4.0	4
CA8	141-2-2529-10500	Bracket Eject	1
CA9	141-0-2529-01500	Arm Eject Assy	1
CA10	141-0-1149-16800	Frame Assy (White)	1
CA10	141-0-1149-16801	Frame Assy (Yellow/Blue)	1
CA11	141-0-1939-18832	AMP/Radio Assy	1
CA12	141-2-4219-30700	Screw, Pan Hd. Tapping-B, +M2.0x6.0	1
CA13	141-2-4219-30001	Screw, Pan Hd. Tapping-B, +M2.0x10.0	1
CA14	141-2-1339-39700	Cap Battery (White)	1
CA14	141-2-1339-39701	Cap Battery (Yellow)	1
CA14	141-2-1339-39702	Cap Battery (Blue)	1
CA15	141-2-2419-37500	Ring Terminal	1
CA16	141-2-3829-48000	Terminal Screw	1
CA17	141-2-4219-45000	Tapping Screw, +M1.7x4.0 CR	3
CA18	141-2-2419-36900	Cap LED	1
CA19	141-2-2529-10600	Shaft Hinge	1
CA20	141-2-4419-14901	Sheet	4
CA21	141-2-2629-10500	Lever Select2	1
CA22	141-2-2629-10400	Lever Select1	1
CA23	141-2-2419-36800	Cap Head Phone (White)	1
CA23	141-2-2419-36801	Cap Head Phone (Yellow/Blue)	1
CA24	141-2-2419-37400	Ring Select	2
CA25	141-2-1629-12100	Knob Select (White)	2
CA25	141-2-1629-12101	Knob Select (Yellow/Blue)	2
CA26	141-2-4219-30000	Screw, Pan Hd. Tapping-B, +M2.0x10.0	3
CA27	141-2-2419-37300	Ring Volume	2
CA28	141-0-1639-08900	Knob Volume Assy (White)	1
CA28	141-0-1639-08901	Knob Volume Assy (Yellow/Blue)	1
CA29	141-2-4219-30500	PI Screw, Pan Hd., +M1.4x6.0	1
CA30	141-0-1569-00100	Cap Volume Assy (White)	2
CA30	141-0-1569-00101	Cap Volume Assy (Yellow)	2
CA30	141-0-1569-00102	Cap Volume Assy (Blue)	2
CA31	141-0-1639-08800	Knob Tuning Assy (White)	1
CA31	141-0-1639-08801	Knob Tuning Assy (Yellow/Blue)	1
CA32	141-2-4219-44500	Screw, M1.4x5.0	1
CA33	141-2-4219-44700	Screw, Pan Hd. Tapping, +M2.0x23.0	1
CA34	141-0-1129-25705	Cabinet Bottom Assy (White)	1
CA34	141-0-1129-25706	Cabinet Bottom Assy (Yellow)	1
CA34	141-0-1129-25707	Cabinet Bottom Assy (Blue)	1
CA35	141-2-2899-61000	Adhesive Sheet	1
CA36	141-2-2419-37100	Cover Button (White)	1
CA36	141-2-2419-37101	Cover Button (Yellow/Blue)	1
CA37	141-2-1219-39800	Plate Lock	1
CA38	141-2-1339-39800	Cover Lock (White)	1
CA38	141-2-1339-39801	Cover Lock (Yellow/Blue)	1
CA39	141-2-4219-45400	PI Screw, Pan Hd., +M1.4x2.0	2
CA40	141-2-4219-45500	PI Screw, Pan Hd., +M1.4x1.6	1
CA41	141-2-2529-10700	Shaft Cover Lock	1
CA42	141-2-3229-35901	Shield Plate	1
CA43	141-2-4469-34602	Cushion	6
CX1	411 019 3607	SCR PAN PCS 1.4X2	2
CX2	411 086 1407	WASHER SPR 1.7	1
CX3	411 020 0602	SCR PAN PCS 1.7X4	1
PCB2	141-0-1939-20790	Headphones Jack P.C.B. Assy	1
	AMP/RADIO ASSY		
CA11	141-0-1939-18832	AMP/Radio Assy	1
1	141-2-8549-14200	Spring	1
2	141-2-4219-08900	Screw, +M1.7x3.0	1
3	141-2-5389-06300	Drum	1
4	141-2-4359-39100	Insulator	1
5	141-2-4359-24900	Insulator	1
6	141-2-7519-82900	Shaft Dial	1
7	623-3-0905-00000	String, ϕ0.2	1
8	141-2-5119-14800	Pointer	1
9	141-0-3119-27700	Chassis Radio Assy	1
10	407 063 1003	LED SLR-34VR [D2/FM Setereo]	1
11	141-2-2899-34000	Adhesive Sheet	1
12	4-2579-72590	Bar Antenna [L3]	1
13	411 016 0203	RING E 2.5	1
14	141-2-4219-27200	Screw, Pan Hd. Tapping, +M1.7x5.0	2
PCB1	141-0-1939-18842	AMP/Radio P.C.B. Assy	1
	HARDWARE KIT		
•	141-0-1919-02900	Hardware-W Kit (White)	1
	141-0-1569-00100	Cover Volume Assy	2
	141-2-1339-40700	Cover Screw 2	6
•	141-0-1919-02901	Hardware-W Kit (Yellow)	1
	141-0-1569-00101	Cover Volume Assy	2
	141-2-1339-40701	Cover Screw 2	6
•	141-0-1919-02902	Hardware-W Kit (Blue)	1
	141-0-1569-00102	Cover Volume Assy	2
	141-2-1339-40702	Cover Screw 2	6

NOTE:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

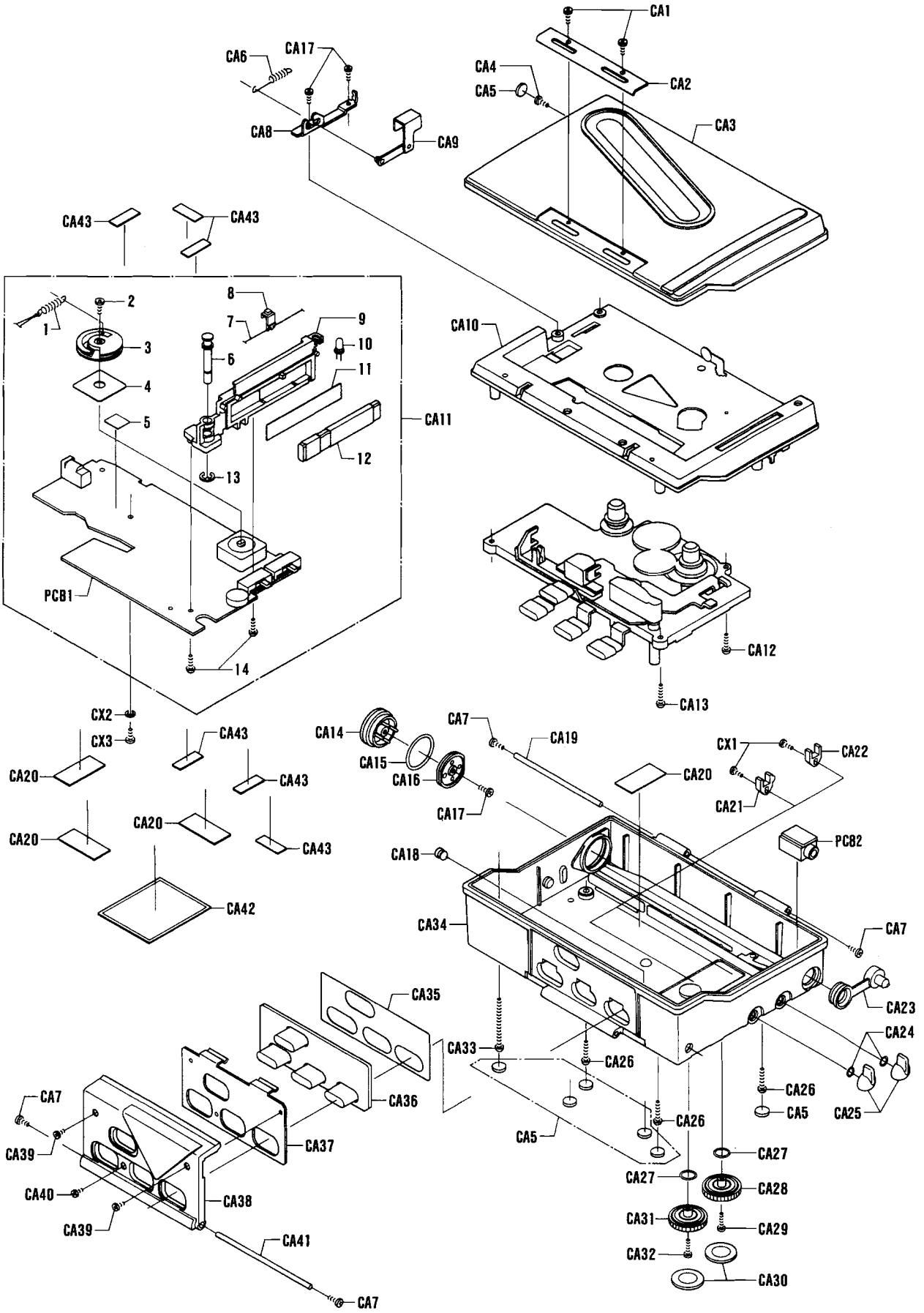
MECHANISM EXPLODED VIEW



MECHANISM PARTS LIST

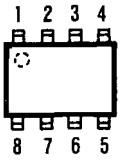
Ref. No.	Part No.	Description	Q'ty
	CASSETTE MECHANISM		
MC1	141-0-3119-22601	Chassis Assy	1
MC2	141-2-4539-27601	Washer, M2.1x3.5x0.13	2
MC3	141-2-4579-04400	E Ring, M1.52	1
MC4	141-2-8519-07500	SPG Lever Stop	1
MC5	141-0-7419-44100	Lever Play Assy	1
MC6	141-2-3529-36500	Head Base	1
MC7	141-2-8519-47400	Spring Head	1
MC8	4-2429-72390	Playback Head [HD1	1
MC9	141-2-4219-24500	PI Screw, Pan Hd.-3, +M2.0x4.0	1
MC10	141-2-8559-02500	Spring Supply	1
MC11	141-2-4539-18100	Washer, M1.6x3.0x0.13	1
MC12	141-0-5369-01901	Reel Supply Assy	1
MC13	141-2-4539-17500	Washer, M1.25x3.0x0.25	2
MC14	141-2-4539-30600	Washer, M1.25x4.0x0.25	2
MC15	141-2-5519-47200	Gear FF	1
MC16	141-0-5459-02000	Pinch Roller Assy	1
MC17	141-2-8529-11600	Spring Pinch Roller	1
MC18	141-2-4539-19800	Washer, M2.1x5.0x0.13	1
MC19	141-0-5219-09901	Flywheel Assy	1
MC20	141-2-5649-21800	Belt Drive	1
MC21	141-2-7319-57300	Plate Lock	1
MC22	141-2-4459-30700	Cushion	1
MC23	141-2-4539-44400	Washer, M2.2x5.6x0.7	1
MC24	141-2-7439-31000	Arm Review	1
MC25	141-0-7419-39502	Lever Rewind Assy	1
MC26	141-0-7419-39602	Lever Stop Assy	1
MC27	141-2-8529-14600	Spring Plate Lock	1

CABINET EXPLODED VIEW

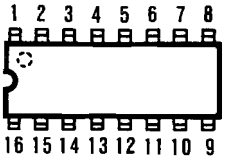


IC LEAD IDENTIFICATION

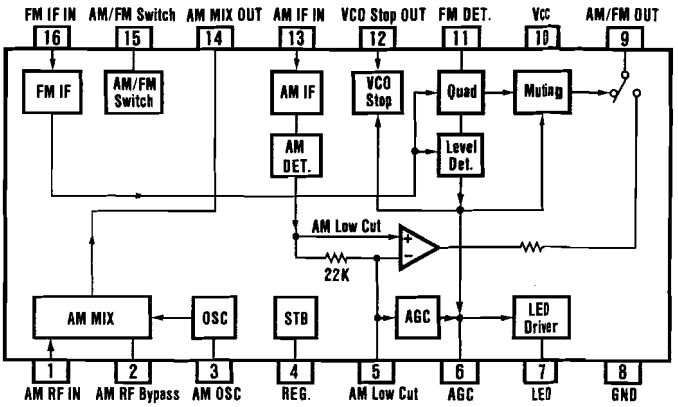
TA7358F BOTTOM VIEW



TA8110F BOTTOM VIEW



TA8110F BLOCK DIAGRAM



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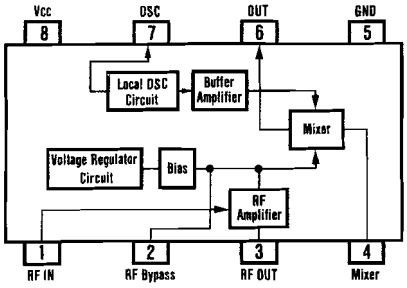

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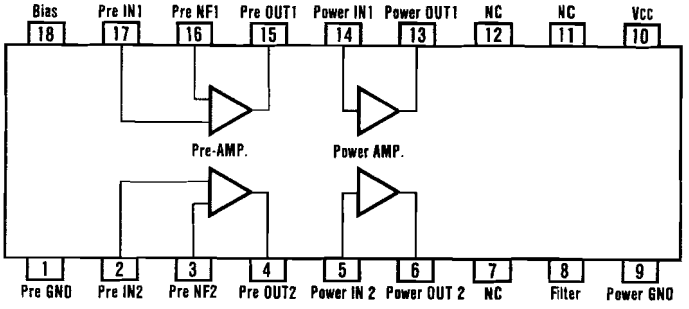
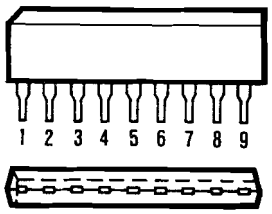
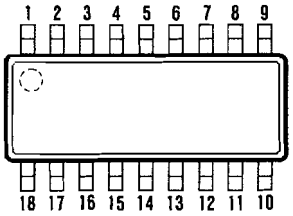


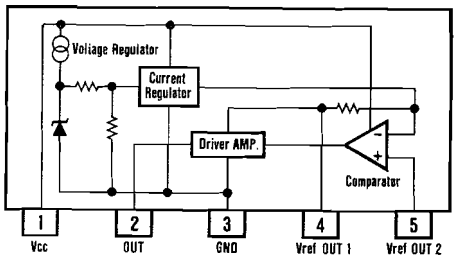
TA7342P FRONT/BOTTOM VIEWS



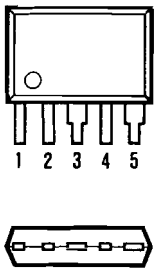
BA3506F BOTTOM VIEW



LA5523 BLOCK DIAGRAM



LA5523 FRONT/BOTTOM VIEWS



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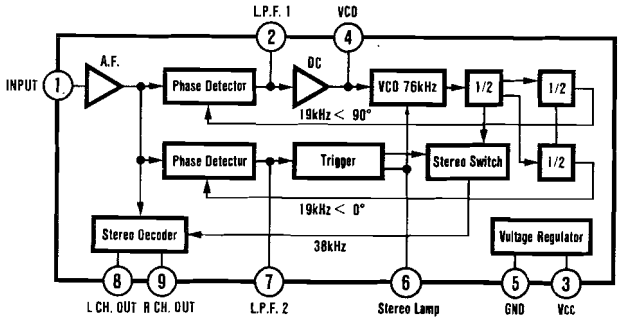


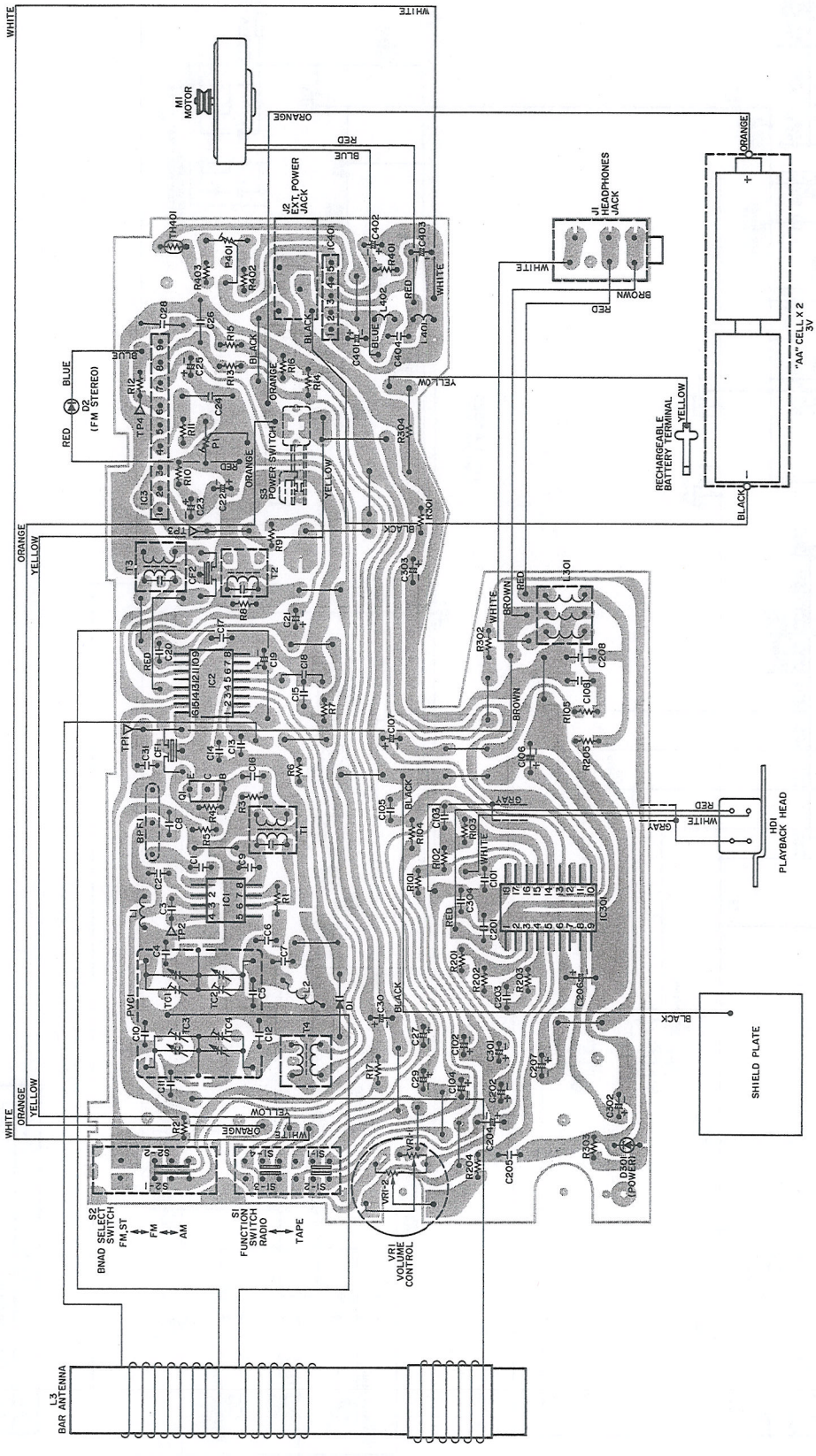
Ref. No.	Part No.	Description	Q'ty
MC28	141-2-3519-64900	Plate	1
MC29	141-2-4219-29900	Screw, Pan Hd. Tapping-B, +M1.7x4.0	6
MC30	141-2-8519-71200	Spring	2
MC31	141-2-8549-06800	Spring Plate Lock	1
MC32	141-2-7439-45700	Arm Power	1
MC33	141-0-5319-07302	Reel Take-up Assy	1
MC34	141-2-8529-11700	Spring Cancel ASO	1
MC35	141-0-3519-21505	Plate Reel Assy	1
MC36	141-2-4539-13000	Washer, M1.6x4.0x0.13	1
MC37	141-2-5519-47000	Pulley Take-up	1
MC38	141-2-5649-09900	Belt Take-up	1
MC39	141-2-8549-18200	Spring	1
MC40	141-2-7439-30700	Arm Take-up	1

Ref. No.	Part No.	Description	Q'ty
MC41	141-2-5519-47500	Gear Take-up	1
MC42	141-2-4539-15700	Washer, M1.5x3.5x0.4	1
MC43	141-0-7419-39402	Lever Fast Assy	1
MC44	141-2-3789-08900	Bracket Motor	1
MC45	4-5279-71290	Motor [M1]	1
MC46	141-2-4359-29900	Insulator	1
MC47	141-2-3229-41700	Plate Shield	1
MC48	141-2-5519-47100	Gear Fast	1
MZ1	411 049 8207	SCR TRS 2X3	1
MZ2	411 033 0507	SCR BIN 2X6	1
MZ3	411 015 7609	RING E 1.5	1
MZ4	411 018 0805	SCR PAN PCS 1.7X2	2

P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	AMP/RADIO P.C.B. ASSY		
PCB1	141-0-1939-18842	AMP/Radio P.C.B. Assy	1
	141-2-4729-05000	Staple, 5mm	18
	141-2-4729-07900	Staple, 7.5mm	6
J2	4-2359-79380	Ext. Power Jack	1
S1	4-2319-77891	Slide Switch (Function)	1
S2	4-2319-77550	Slide Switch (Band Select)	1
S3	4-2319-76920	Leaf Switch (Power)	1
BPF1	4-2539-72000	Band Pass Filter	1
L1	4-2599-71490	RF Coil	1
L2	4-2589-72930	FM OSC Coil	1
L301	4-2599-71200	FM ANT Trap Coil	1
L401	4-2539-71161	Choke Coil	1
L402	4-2539-71161	Choke Coil	1
T1	4-2569-71511	IFT FM	1
or	4-2569-71512	IFT FM	1
T2	4-2569-71700	IFT FM	1
or	4-2569-71702	IFT FM	1
T3	4-2569-71800	IFT AM	1
or	4-2569-71801	IFT AM	1
T4	4-2589-71622	OSC Trans MW	1
or	4-2589-71624	OSC Trans MW	1
CF1	4-2539-70881	Ceramic Filter	1
CF2	4-2539-71881	Ceramic Filter 460	1
PVC1	4-2249-71051	Variable Condenser	1
P1	4-2229-76136	Potentiometer (B-10kΩ)	1
P401	4-2229-76139	Potentiometer (B-2.2kΩ)	1
VR1	4-2229-76690	Volume Control (A-20kΩx2)	1
TH401	4-2219-70540	Thermistor 200	1
or	407 014 9904	THERMISTOR SDT-20	1
D1	407 061 5904	DIODE ITT410B	1
D301	407 063 1003	LED SLR-34VR (Battery)	1
IC1	409 049 2004	IC TA7358F	1
IC2	409 071 7305	IC TA8110F	1
IC3	409 049 1007	IC TA7342P	1
IC301	409 068 1903	IC BA3506AF	1
IC401	409 018 2301	IC LA5523	1
Q1	405 033 1305	TR 2SC2786-K	1
C1	403 008 7406	CERAMIC 10P D 50V	1
C2	403 069 1702	CERAMIC 1000P K 50V	1
C3	403 027 5407	CERAMIC 5P D 50V	1
C4	403 019 2209	CERAMIC 24P J 50V	1
C5	403 019 2209	CERAMIC 24P J 50V	1
C6	403 012 6808	CERAMIC 15P J 50V	1
C7	403 021 4208	CERAMIC 3P D 50V	1
C8	403 069 1702	CERAMIC 1000P K 50V	1
C9	403 067 9304	CERAMIC 0.01U K 25V	1
C10	403 067 9304	CERAMIC 0.01U K 25V	1
C11	403 021 4208	CERAMIC 3P D 50V	1
C12	403 008 7406	CERAMIC 10P D 50V	1
C13	403 068 2007	CERAMIC 0.022U K 25V	1
C14	403 068 2007	CERAMIC 0.022U K 25V	1
C15	403 068 4407	CERAMIC 0.047U K 25V	1
C16	403 069 1702	CERAMIC 1000P K 50V	1
C17	403 068 2007	CERAMIC 0.022U K 25V	1
C18	403 067 8208	MT-COMPO 0.068U J 50V	1
C19	403 047 1809	ELECT 4.7U M 25V	1
C20	403 075 4803	CERAMIC 820P K 50V	1
C21	403 042 0807	ELECT 10U M 16V	1
C22	403 049 2002	ELECT 1U M 50V	1
C23	403 050 8000	ELECT 3.3U M 50V	1
C24	403 080 5109	POLYPRO 1000P J 100V	1
C25	403 049 2002	ELECT 1U M 50V	1
C26	403 002 8505	CERAMIC 0.015U K 25V	1
C27	403 047 9904	ELECT 0.1U M 50V	1
C28	403 002 8505	CERAMIC 0.015U K 25V	1
C29	403 047 9904	ELECT 0.1U M 50V	1
C30	403 038 0002	ELECT 220U M 4V	1
C31	403 008 7406	CERAMIC 10P D 50V	1
C101	403 069 1702	CERAMIC 1000P K 50V	1
C102	403 042 0807	ELECT 10U M 16V	1
C103	403 068 2007	CERAMIC 0.022U K 25V	1
C104	403 047 1809	ELECT 4.7U M 25V	1
C105	403 069 1702	CERAMIC 1000P K 50V	1
C106	403 091 2708	TA-SOLID 2.2U M 16V	1
C107	4-2239-71961	Capacitor CD 220M 4V	1
C108	403 068 4407	CERAMIC 0.047U K 25V	1
C201	403 069 1801	CERAMIC 1000P K 50V	1
C202	403 042 0807	ELECT 10U M 16V	1
C203	403 068 2007	CERAMIC 0.022U K 25V	1
C204	403 047 1809	ELECT 4.7U M 25V	1
C205	403 069 1702	CERAMIC 1000P K 50V	1
C206	403 089 5308	TA-SOLID 2.2U M 4V	1
C207	403 038 0002	ELECT 220U M 4V	1
C208	403 068 4407	CERAMIC 0.047U K 25V	1
C301	403 038 0408	ELECT 33U M 4V	1
C302	403 038 0002	ELECT 220U M 4V	1
C303	403 038 0002	ELECT 220U M 4V	1
C304	403 069 1702	CERAMIC 1000P K 50V	1
C401	403 050 1605	ELECT 2.2U M 50V	1
C402	403 038 5908	ELECT 22U M 6.3V	1
C403	403 038 0002	ELECT 220U M 4V	1
C404	403 068 2007	CERAMIC 0.022U K 25V	1
R1	401 036 7801	MT-GLAZE 47 JA 1/8W	1
R2	401 037 5103	MT-GLAZE 10 JA 1/10W	1
R3	401 038 9001	MT-GLAZE 680 JA 1/10W	1
R4	401 038 6604	MT-GLAZE 470K JA 1/10W	1
R5	401 037 5400	MT-GLAZE 1K JA 1/10W	1
R6	401 038 3801	MT-GLAZE 330K JA 1/10W	1
R7	401 038 3801	MT-GLAZE 330K JA 1/10W	1
R8	401 038 3603	MT-GLAZE 3.3K JA 1/10W	1
R9	401 038 7700	MT-GLAZE 5.6K JA 1/10W	1
R10	401 037 5400	MT-GLAZE 1K JA 1/10W	1
R11	401 037 5608	MT-GLAZE 10K JA 1/10W	1
R12	401 038 7601	MT-GLAZE 560 JA 1/10W	1
R13	401 038 6406	MT-GLAZE 4.7K JA 1/10W	1
R14	401 035 9806	MT-GLAZE 18K JA 1/8W	1
R15	401 038 6406	MT-GLAZE 4.7K JA 1/10W	1
R16	401 035 9309	MT-GLAZE 18K JA 1/10W	1
R17	401 035 4306	MT-GLAZE 10 JA 1/8W	1
R101	401 038 0602	MT-GLAZE 220 JA 1/10W	1
R102	401 038 7700	MT-GLAZE 5.6K JA 1/10W	1
R103	401 037 8104	MT-GLAZE 150K JA 1/10W	1
R104	401 035 4900	MT-GLAZE 1K JA 1/8W	1
R105	401 038 2507	MT-GLAZE 3.3 JA 1/10W	1
R201	401 038 0602	MT-GLAZE 220 JA 1/10W	1
R202	401 038 7700	MT-GLAZE 5.6K JA 1/10W	1
R203	401 037 8104	MT-GLAZE 150K JA 1/10W	1
R204	401 037 5400	MT-GLAZE 1K JA 1/10W	1
R205	401 038 2507	MT-GLAZE 3.3 JA 1/10W	1
R301	401 038 2507	MT-GLAZE 3.3 JA 1/10W	1
R302	401 038 6307	MT-GLAZE 470 JA 1/10W	1
R303	401 037 9200	MT-GLAZE 1.8K JA 1/10W	1
R304	401 014 1609	CARBON 15 JA 1/4W	1
R401	401 038 0008	MT-GLAZE 200 JA 1/10W	1
R402	401 038 6406	MT-GLAZE 4.7K JA 1/10W	1
R403	401 038 8608	MT-GLAZE 6.2K JA 1/10W	1
	HEADPHONES JACK P.C.B. ASSY		
PCB2	141-0-1939-20790	Headphones Jack P.C.B. Assy	1
	4-2262-32250	PCB, Headphones	1
J1	4-2352-02120	Jack 3P (Headphones)	1

P.C.BOARD & WIRING DIAGRAM



IC1

	1	2	3	4	5	6	7	8	9
FM	0.7	1.5	2.8	1.4	0	2.8	0.8	2.7	2.8
AM	—	—	—	—	—	—	—	—	—

IC2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FM	1.1	1.1	1.6	1.6	0.3	0.6	0	0	1.2	2.8	2.8	2.8	1.1	2.8	2.8	1.1
AM	1.1	1.1	1.6	1.6	0.4	0.4	0	0	1.2	2.9	2.9	2.9	1.1	2.9	0	1.1

IC3

	1	2	3	4	5	6	7	8	9
FM	0.6	2.1	2.8	2.2	0	2.3	2.8	0.8	0.8
FM ST.	0.6	2.1	2.8	2.4	0	2.3	2.2	0.8	0.8
AM	0.6	2.2	2.9	2.3	0	2.4	2.9	0.8	0.8

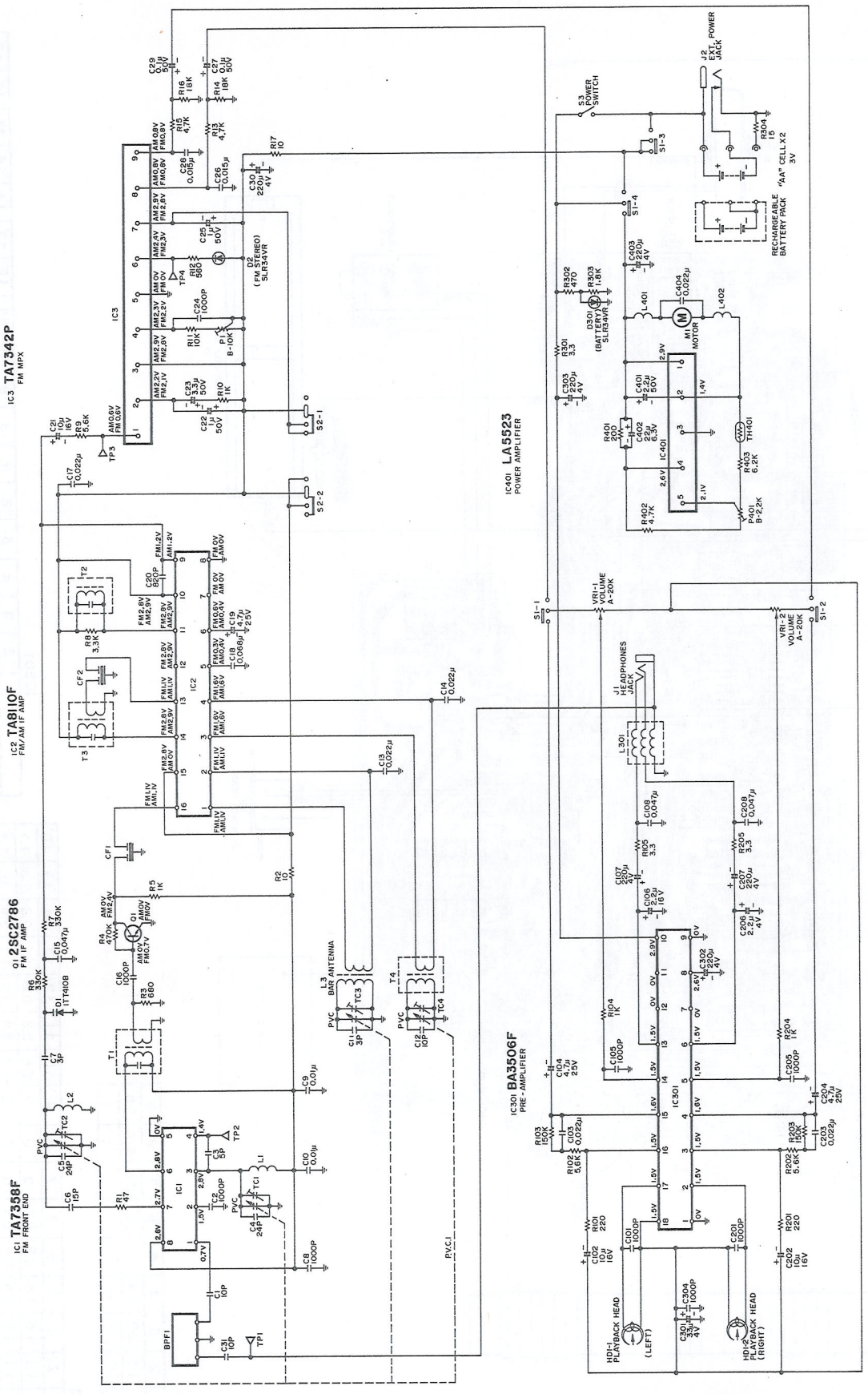
IC301

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Tape	0	1.5	1.5	1.6	1.5	1.5	0	2.6	0	2.9	0	0	1.5	1.5	1.6	1.5	1.5	1.5
Radio	0	1.5	1.5	1.6	1.5	1.5	0	2.7	0	3.0	0	0	1.5	1.5	1.6	1.5	1.5	1.5

IC401

	1	2	3	4	5
Playback	2.9	1.4	0	2.6	2.1

SCHEMATIC DIAGRAM



No.	Name	Position
S1	Function Switch	TAPE AM OFF
S2	Band Select Switch	
S3	Power Switch	

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